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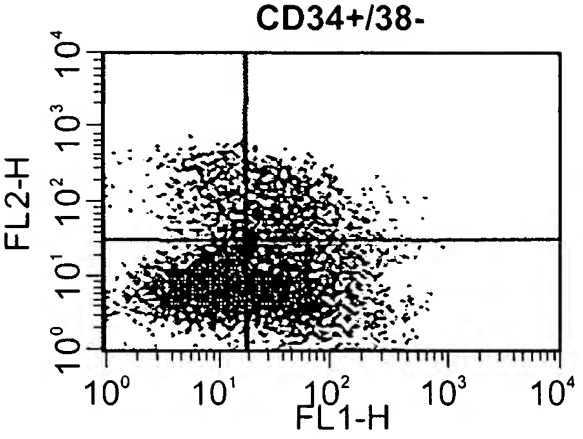
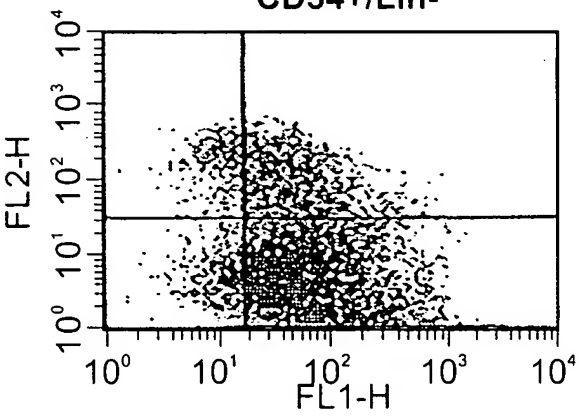


X Parameter:FL1+
Y Parameter:FL2+

Quad	% Gated
UL	6.82
UR	12.59
LL	44.09
LR	36.50

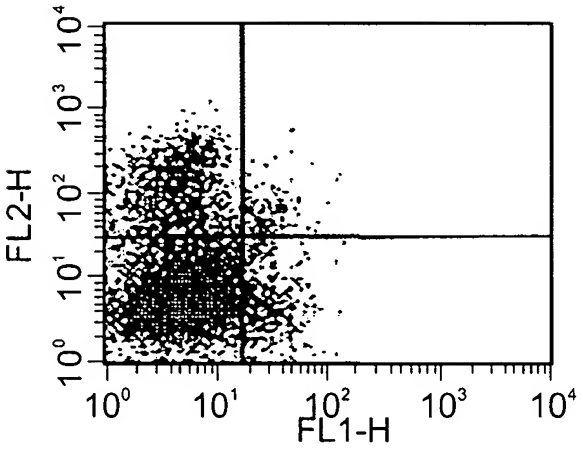


X Parameter:FL1+
Y Parameter:FL2+

Quad	% Gated
UL	3.96
UR	13.40
LL	6.35
LR	76.29

Fig. 1a

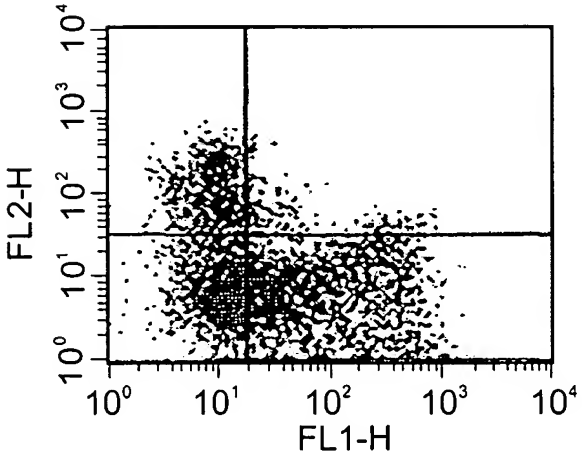
CD34+/38-



X Parameter:FL1-
Y Parameter:FL2-

Quad	% Gated
UL	17.14
UR	1.80
LL	75.27
LR	5.79

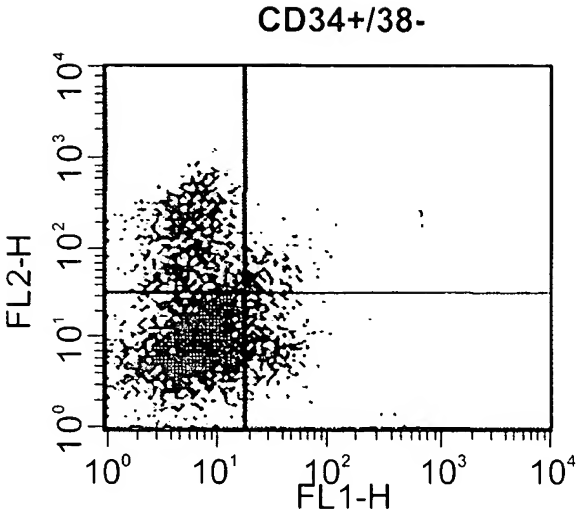
CD34+/Lin-



X Parameter:FL1-
Y Parameter:FL2-

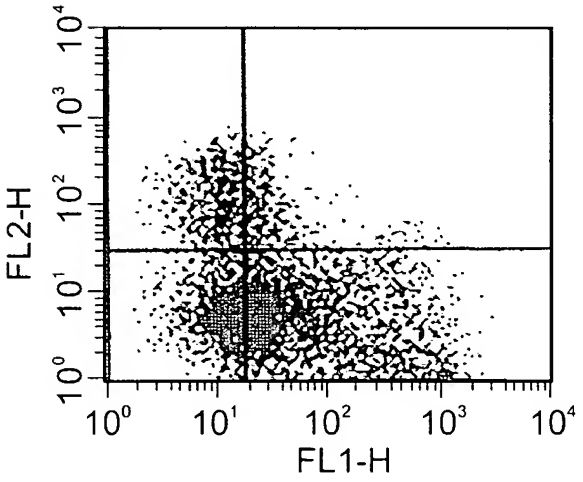
Quad	% Gated
UL	15.58
UR	3.18
LL	30.18
LR	51.06

Fig. 1b



X Parameter:FL1-
Y Parameter:FL2-

Quad	% Gated
UL	17.16
UR	2.43
LL	74.12
LR	6.29

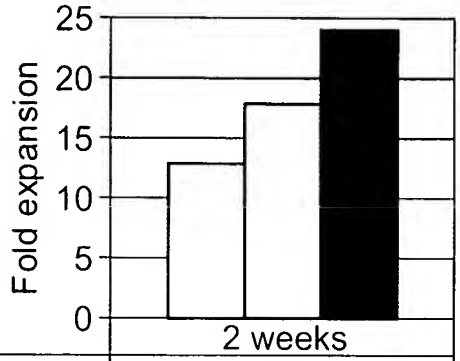


X Parameter:FL1-
Y Parameter:FL2-

Quad	% Gated
UL	11.91
UR	5.54
LL	23.45
LR	59.09

Fig. 1c

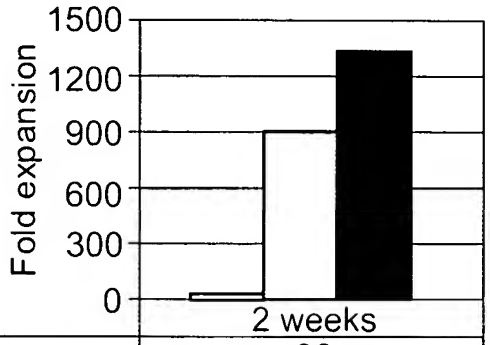
Fold expansion (2w) CD34+



control	13
antagonist 10-5M	18
antagonist 10-7M	24

Fig. 2a

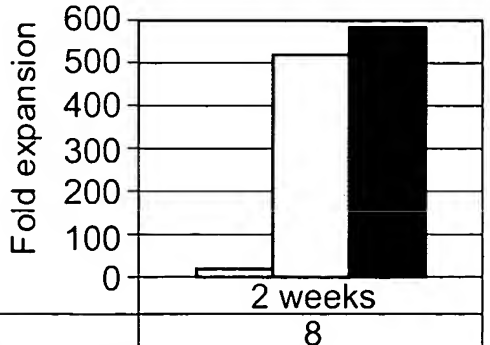
Fold expansion (2w) CD34+/38-



control	36
antagonist 10-5M	903
antagonist 10-7M	1320

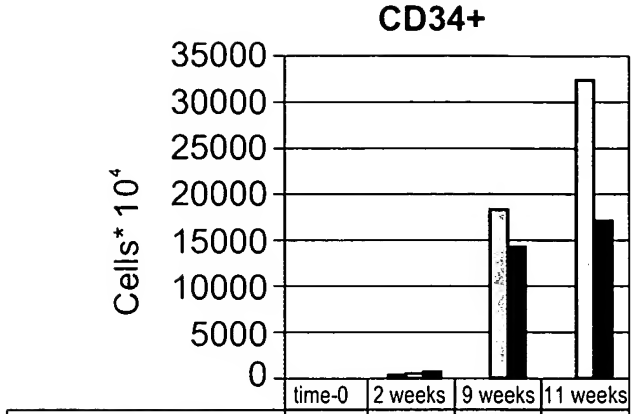
Fig. 2b

Fold expansion (2w) CD34+/Lin-



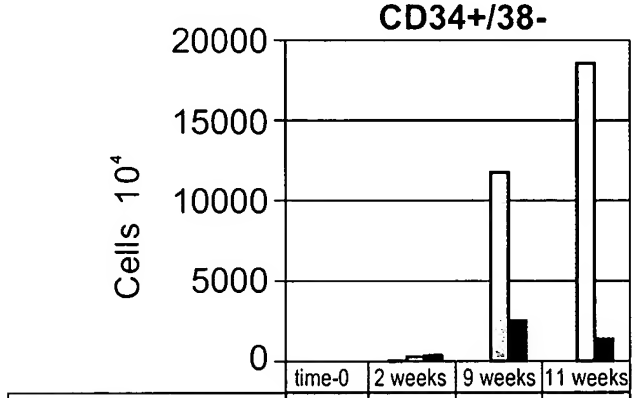
control	8
antagonist 10-5M	518
antagonist 10-7M	585

Fig. 2c



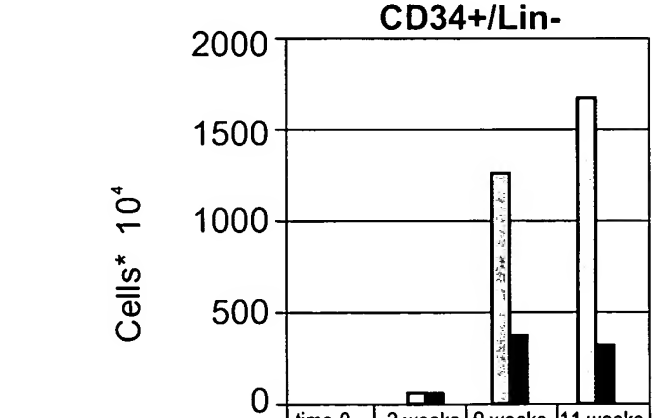
	time-0	2 weeks	9 weeks	11 weeks
control	20	258	0	0
antagonist 10-5M	20	353	18347	32427
antagonist 10-7M	20	486	14080	17067

Fig. 3a



	time-0	2 weeks	9 weeks	11 weeks
control	0.28	10	0	0
antagonist 10-5M	0.28	253	11960	18983
antagonist 10-7M	0.28	370	1864	1080

Fig. 3b



	time-0	2 weeks	9 weeks	11 weeks
control	0.1024	1	0	0
antagonist 10-5M	0.1024	53	1268	1670
antagonist 10-7M	0.1024	60	355	321

Fig. 3c

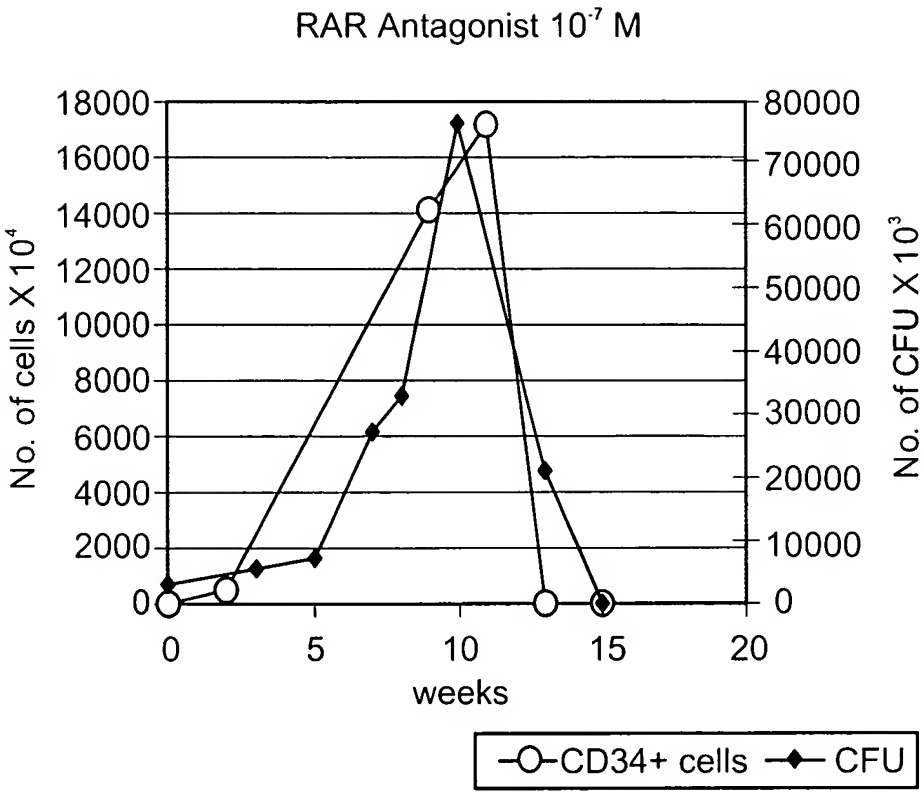

RAR Antagonist 10-7 M
No. of cells X 10^4
No. of CFU X 10^3
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
80000
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
weeks
CD34+ cells
CFU

Fig. 4

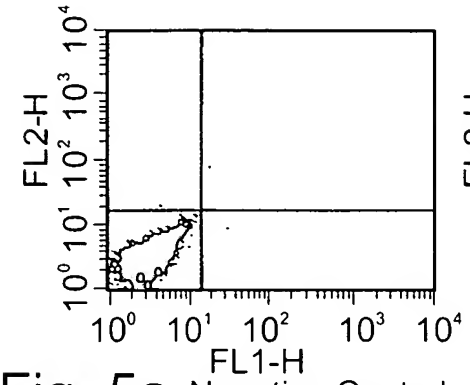
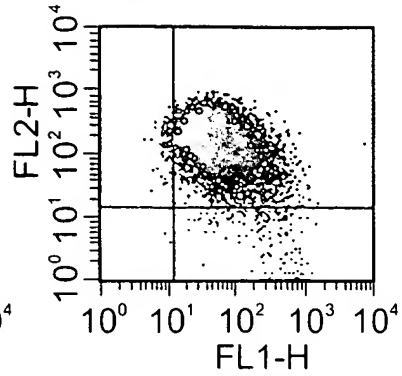


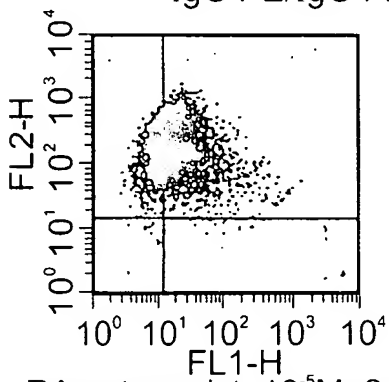
Fig. 5a Negative Control, IgG PE/IgG FITC



Control, 2 weeks, $CD34^+$ Lin^-

Quad	% Gated
UL	1.60
UR	95.79
LL	0.03
LR	2.58

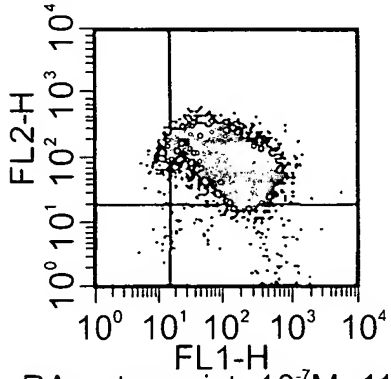
Fig. 5b



RA antagonist, 10^{-5}M, 2 weeks, $CD34^+$ Lin^-

Quad	% Gated
UL	36.89
UR	62.77
LL	0.14
LR	0.20

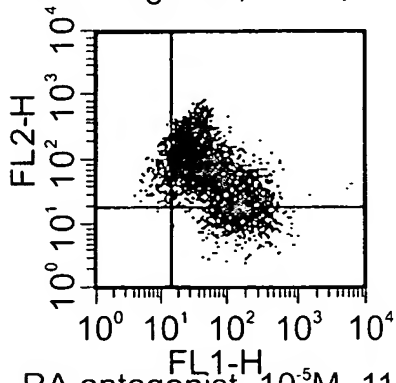
Fig. 5c



RA antagonist, 10^{-7}M, 11 weeks, $CD34^+$ Lin^-

Quad	% Gated
UL	1.88
UR	94.95
LL	0.15
LR	3.03

Fig. 5d



RA antagonist, 10^{-5}M, 11 weeks, $CD34^+$ Lin^-

Quad	% Gated
UL	5.15
UR	79.08
LL	0.07
LR	15.71

Fig. 5e

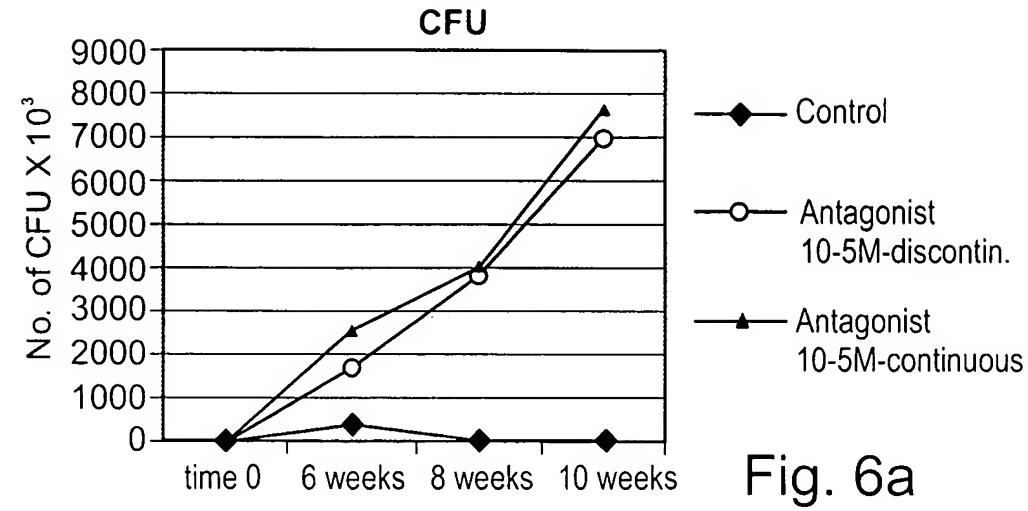


Fig. 6a

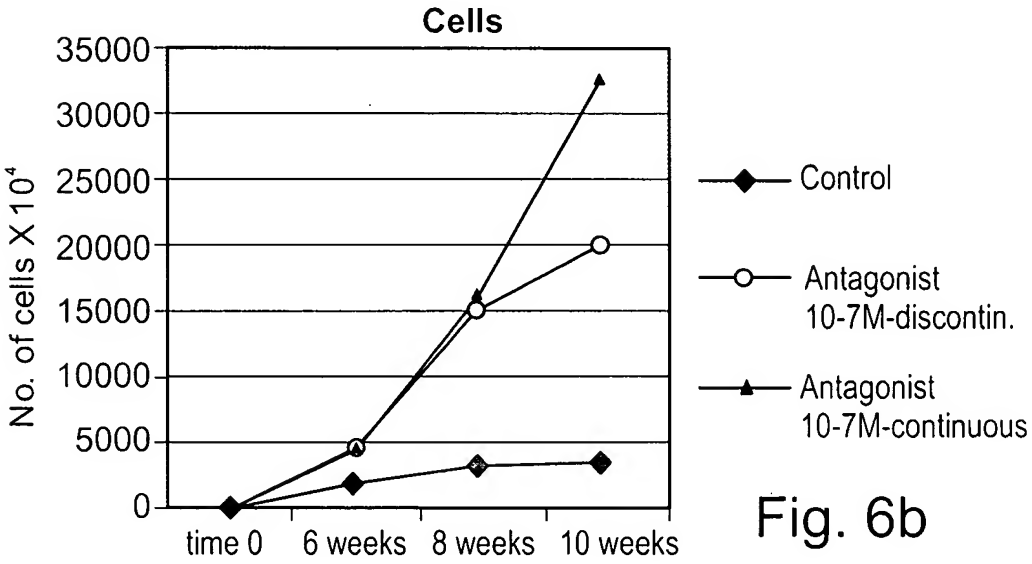


Fig. 6b

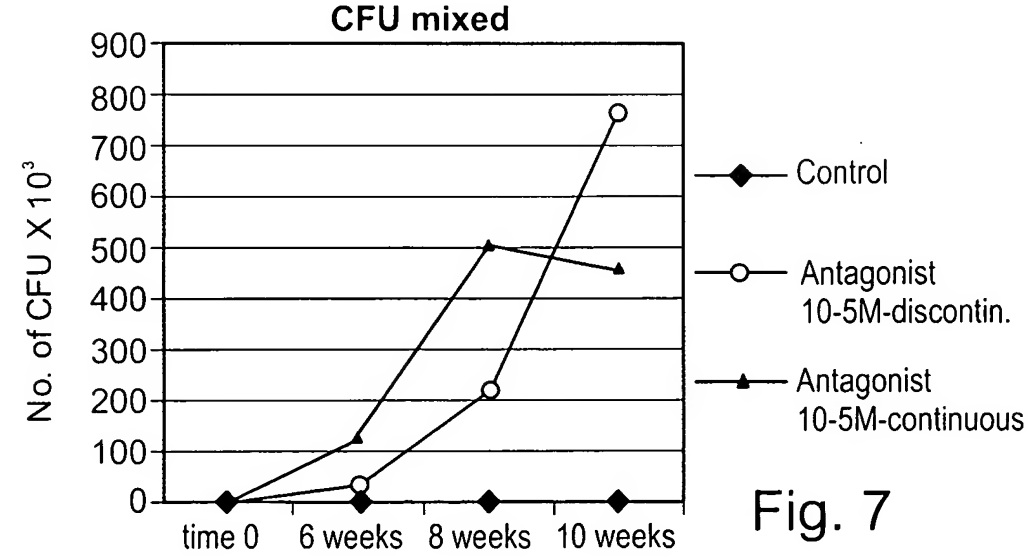


Fig. 7

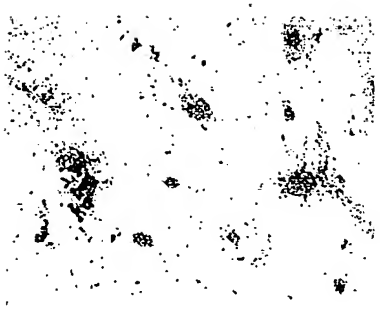


Fig. 8a

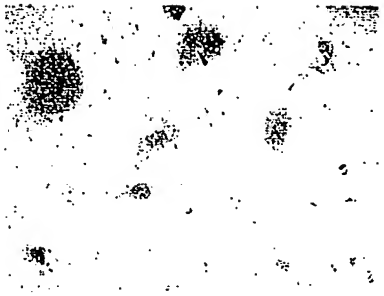


Fig. 8b

Fig. 9a

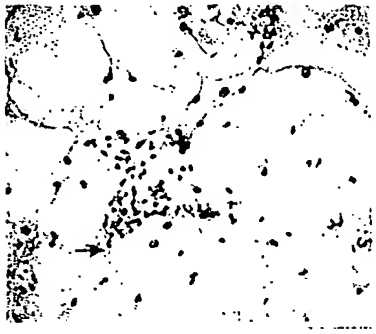


Fig.9b

Fig. 9c

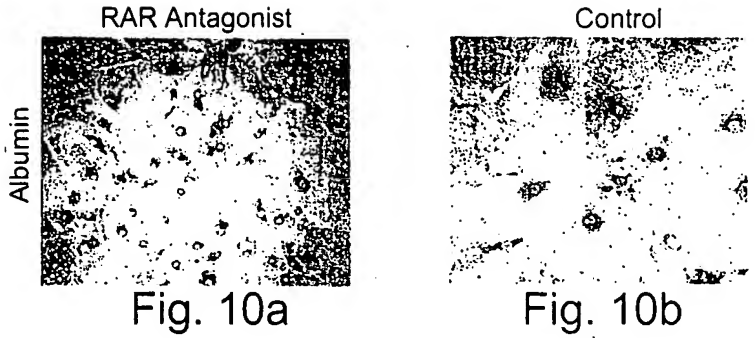


Fig. 10a

Fig. 10b

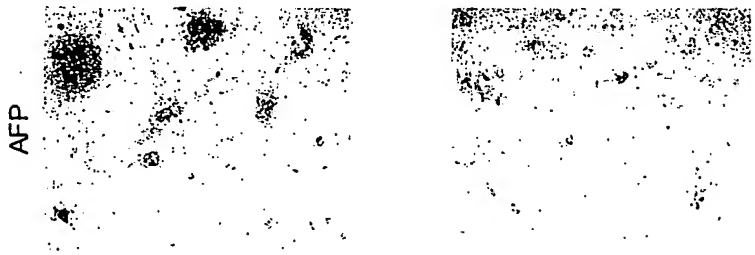


Fig. 10c

Fig. 10d

Fig. 11a

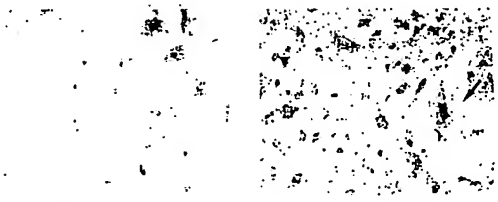


Fig. 11b

Fig. 11c

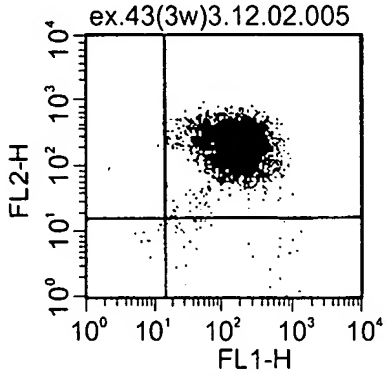
Fig. 11d

Fig. 11e

Fig. 11f

3 weeks-(34/Lin FACS analysis)

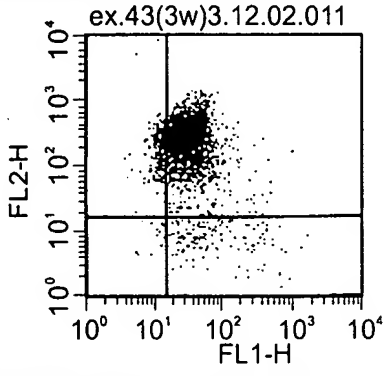
Control-cytokines only



File:ex.43(3w)3.12.02.005
SampleID:
X Parameter:FL1-H(Log)
Y Parameter:FL2-H(Log)

Quad	% Gated
UL	0.04
UR	98.99
LL	0.22
LR	0.75

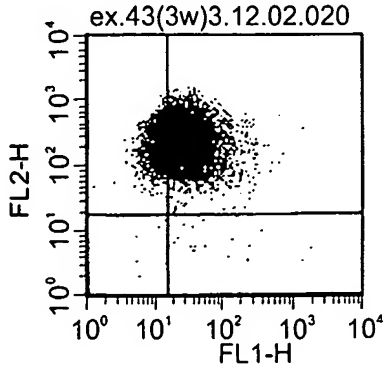
RAR antagonist 10-7M



File:ex.43(3w)3.12.02.011
SampleID:
X Parameter:FL1-H(Log)
Y Parameter:FL2-H(Log)

Quad	% Gated
UL	8.19
UR	85.41
LL	0.44
LR	5.96

RAR+RXR antagonist 10-7M



File:ex.43(3w)3.12.02.020
SampleID:
X Parameter:FL1-H(Log)
Y Parameter:FL2-H(Log)

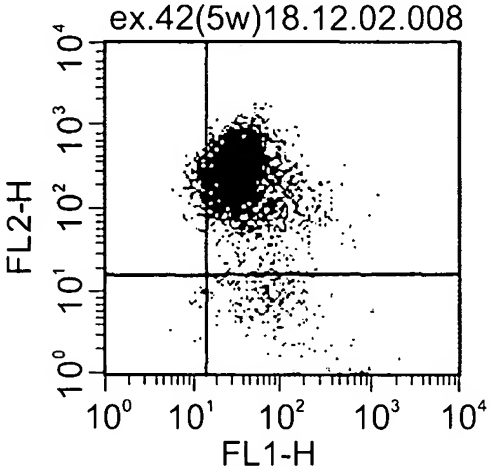
Quad	% Gated
UL	19.75
UR	79.79
LL	0.09
LR	0.37

Fig. 12a

5 weeks-(34/Lin FACS analysis)

*Control(only cytokines) -The number of cells was not sufficient for FACS analysis.

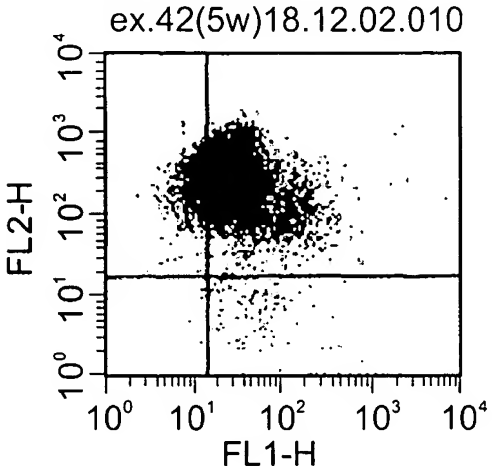
RAR antagonist 10-7M



File:ex.42(5w)18.12.02.008
Sample ID:
X Parameter:FL1-H(Log)
Y Parameter:FL2-H(Log)

Quad	% Gated
UL	3.19
UR	91.04
LL	0.39
LR	5.37

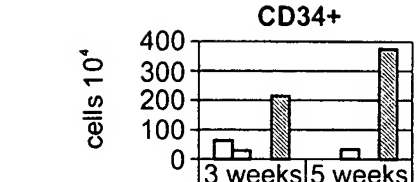
RAR+RXR antagonist 10-7M



File:ex.42(5w)18.12.02.010
Sample ID:
X Parameter:FL1-H(Log)
Y Parameter:FL2-H(Log)

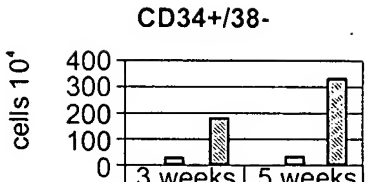
Quad	% Gated
UL	17.38
UR	81.18
LL	0.08
LR	1.36

Fig. 12b



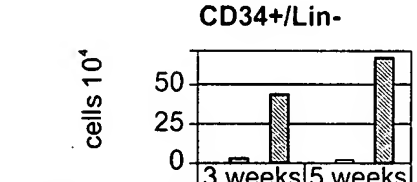
	3 weeks	5 weeks
control	74	0
RAR 10-7	33	41
RXR 10-7	0	0
RAR+RXR 10-7	220	379

Fig. 13a



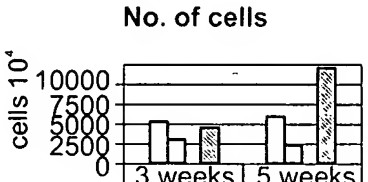
	3 weeks	5 weeks
control	0.37	0
RAR 10-7	30	36
RXR 10-7	0	0
RAR+RXR 10-7	177	336

Fig. 13b



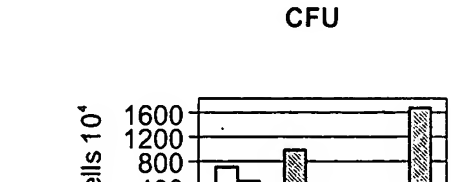
	3 weeks	5 weeks
control	0.03	0
RAR 10-7	2.7	1.31
RXR 10-7	0	0
RAR+RXR 10-7	43.47	65.79

Fig. 13c



	3 weeks	5 weeks
control	5088	5952
RAR 10-7	3024	2496
RXR 10-7	96	0
RAR+RXR 10-7	4464	11904

Fig. 13d



	3 weeks	5 weeks
control	768	0
RAR 10-7	547	211
RXR 10-7	0	0
RAR+RXR 10-7	1037	1632

Fig. 13e

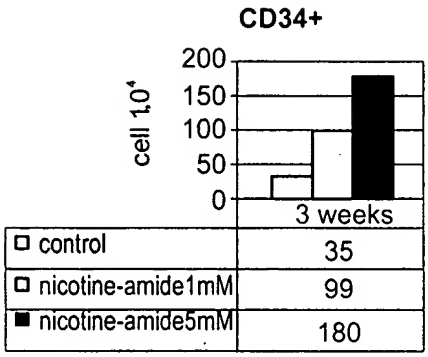


Fig. 14

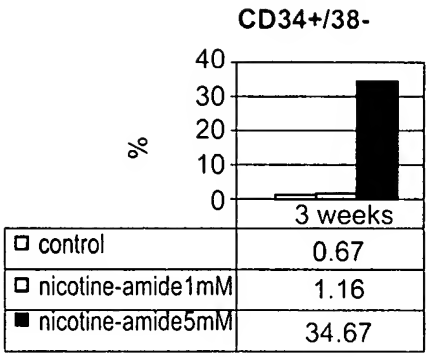


Fig. 15

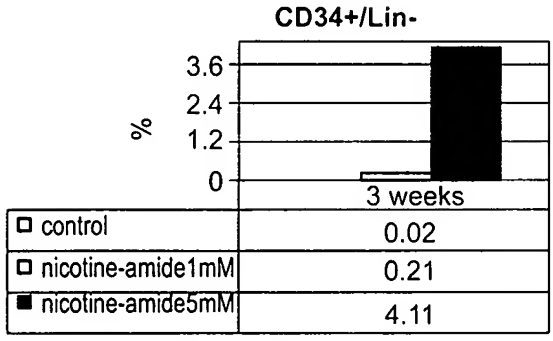


Fig. 16

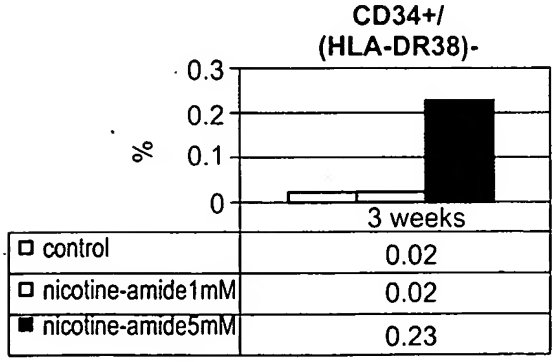
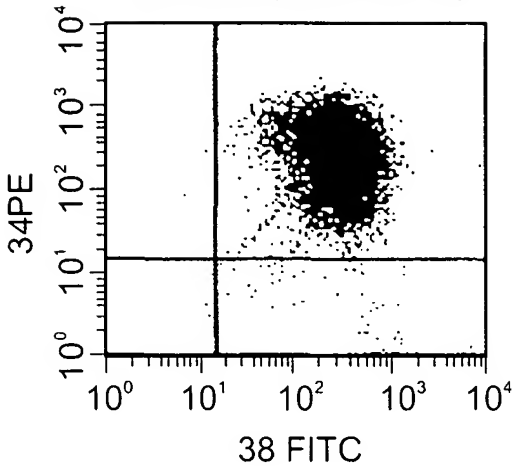


Fig. 17

FACS analysis

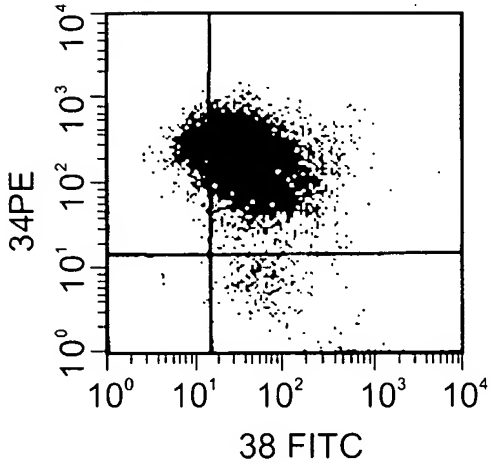
34/38

Control-cytokines only



Quad	% Gated
UL	0.14
UR	99.44
LL	0.12
LR	0.30

Nicotinamide 5 mM

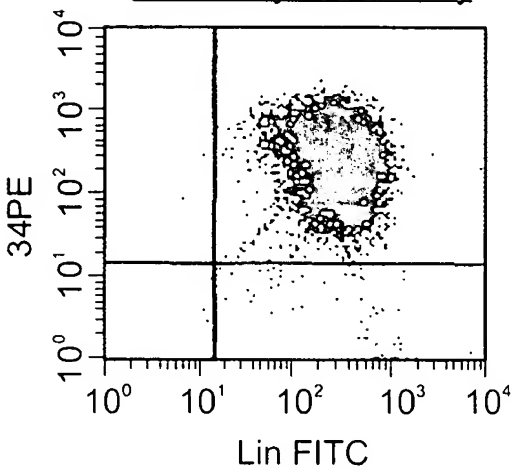


Quad	% Gated
UL	34.67
UR	62.28
LL	1.24
LR	1.80

Fig. 18a

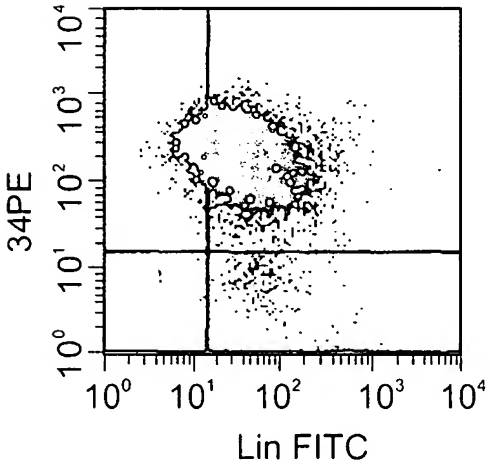
FACS analysis: CD34/Lin

Control-cytokines only



Quad	% Gated
UL	0.02
UR	99.08
LL	0.05
LR	0.85

Nicotinamide 5 mM

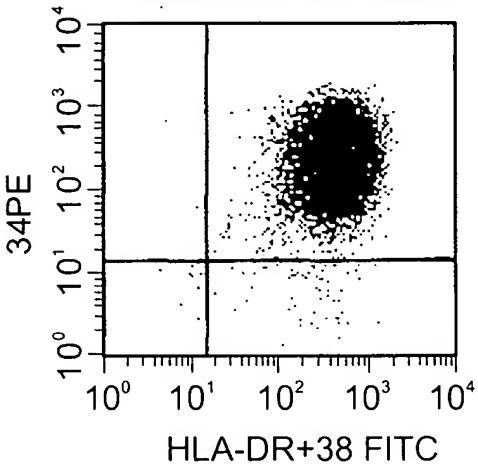


Quad	% Gated
UL	16.58
UR	80.08
LL	0.05
LR	3.29

Fig. 18b

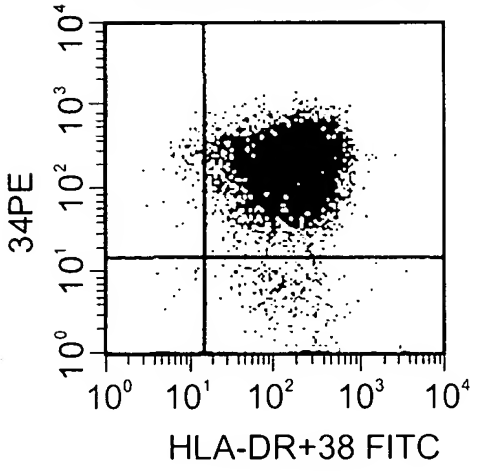
FACS analysis: 34/HLA-DR+38

Control-cytokines only



Quad	% Gated
UL	0.02
UR	99.02
LL	0.12
LR	0.84

Nicotinamide 5 mM



Quad	% Gated
UL	1.02
UR	95.43
LL	0.16
LR	3.39

Fig. 18c